

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-12 and 18 are pending. Claims 13-15 are withdrawn from consideration. Claims 1 and 6 are independent. Reconsideration of this application, as amended, is respectfully requested.

Claim for Priority

The Examiner has recognized Applicants' claim for foreign priority and receipt of the certified copy of the priority document. No further action is required at this time.

Drawings

Applicants have not received a Notice of Draftsperson's Patent Drawing Review, Form PTO-948, indicating whether the formal drawings filed with the present application are approved. It is respectfully submitted that the drawings comply with USPTO requirements. Clarification with the next official communication is respectfully requested.

Restriction Requirement

Applicants hereby affirm the provisional election of Group I, claims 1-12 and 16-18, drawn to the apparatus. Claims 13-15 are canceled, Applicants reserving the right to file one or more

divisional applications directed to the subject matter of the non-elected claims.

Rejections under 35 U.S.C. §112, second paragraph/Claim Objections

Claims 8 and 16-18 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 4, 5, 16, and 17 are objected to because of certain informalities.

Claim 8 is amended to address the issues noted in the Office Action.

The Office Action also states that claims 16-18 are apparatus claims which should depend from claim 1 rather than method claim 15 and that claims 4 and 5 are the same as claims 16 and 17.

Since claims 16 and 17 depend from canceled non-elected claim 15, claims 16 and 17 are canceled. Claim 18 is amended to depend from claim 1. Withdrawal of the rejections under 35 U.S.C. §112, second paragraph, and claim objections is, therefore, respectfully requested.

Rejections under 35 U.S.C. §102(b)/§103(a)/Allowable Subject Matter

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by JP 10-22358 to Kinose. Claims 2, 4-7, 9-11, 16, and 17 are rejected under 35 U.S.C. §103(a) as being obvious

over Kinose and Applicants' disclosed related art. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kinose and Applicants' disclosed related art in view of U.S. Patent No. 5,763,892 to Kizaki et al. These rejections are respectfully traversed.

The Office Action states that claim 8 would be allowable if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph.

Applicants appreciate the early indication of allowable subject matter. It is respectfully submitted that amended claim 8 complies with the requirements of 35 U.S.C. §112, second paragraph. However, this claim is not rewritten in independent form because, as discussed below, it is believed that independent claims 1 and 6 are allowable over the cited art.

Independent claim 1 recites a cleaning apparatus for cleaning an alien substance from a substrate provided with a mask pattern prior to wet etching having a combination of elements, including an ultraviolet cleaner and a conveyer conveying the substrate to and from the ultraviolet cleaner.

Independent claim 6 recites a wet etching apparatus for cleaning alien substances from a substrate with a mask pattern prior to wet etching having a combination of elements, including

an ultraviolet cleaner cleaning the alien substances from the substrate, a conveyer conveying the substrate to and from the ultraviolet cleaner, a loader loading the substrate to and from the ultraviolet cleaner, and an etching unit etching the substrate that is free of the alien substances, the conveyer conveying the substrate from the ultraviolet cleaner into the etching unit.

It is respectfully submitted that the combinations of elements set forth in independent claims 1 and 6 are not anticipated or made obvious by the prior art of record, including Kinose, Applicants' disclosed related art, and Kizaki et al.

In contrast to Applicants' claimed invention, Kinose merely discloses a substrate processing apparatus including processing units 5 and 6 for performing a UV radiation for cleaning a glass substrate 2, as shown in FIG. 1. Kinose does not pertain to wet etching and, therefore, fails to teach or suggest a cleaning apparatus used for wet etching, as set forth in independent claim 1. In addition, neither Kinose nor Applicants disclosed related art teaches or suggests using an ultraviolet cleaner to eliminate alien substances remaining on a substrate after forming a photoresist pattern and prior to performing wet

etching. Kizaki et al. fails to cure the deficiencies of Kinose and the disclosed related art as primary references.

In view of the foregoing, it is respectfully submitted that the combinations of elements set forth in claims 1 and 6 are not anticipated or made obvious by the prior art of record, including Kinose, Applicants' disclosed related art, and Kizaki et al. Reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b) and §103(a) are, therefore, respectfully requested. Since the remaining claims depend directly or indirectly from allowable independent claims 1 or 6, they are also allowable for at least the reasons set forth above, as well as the additional limitations set forth by these claims. Thus, all claims are allowable.

Conclusion

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

All the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

However, if there are any outstanding issues, the Examiner is invited to telephone Sam Bhattacharya, Reg. No. 48,107, at (703) 205-8000 in an effort to expedite prosecution.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,
BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Joseph A. Kolasch, #22,463

2658-247P
Attachment
JAK:SB:rk
58

P. O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Serial No. 09/731,738
Docket No. 2658-247P

- ☒ Petition for one-month extension of time pursuant to 37 C.F.R. §§1.17 and 1.136(a). \$110 for the extension of time.
- ☐ No fee is required.
- ☒ Check in the amount of \$110 is enclosed.
- ☐ Please charge Deposit Account No. 02-2448 in the amount of \$0.00. This form is submitted in triplicate.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. \$1.16 or under 37 C.F.R. \$1.17, particularly extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Joseph A. Kolasch, #22,463

2658-247P
Attachments
JAK:SB:rk

SB

P. O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000